Journal of Correctional Health Care
Volume 29, Number 1, 2023
© The Author(s) 2023
DOI: 10.1089/jchc.21.10.0109

JOURNAL OF CORRECTIONAL HEALTH CARE

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RESEARCH ARTICLE

The Disproportionate Mental Health Burden Among Incarcerated Transgender and Gender Diverse People

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Abstract

This article examines the distribution of self-reported mental health conditions and clinical contact among incarcerated transgender and gender diverse (TGD) individuals compared to cisgender women and men. Data are derived from the 2016 Survey of Prison Inmates. Results indicate that TGD respondents report more mental health symptoms, conditions, and clinical contact than their cisgender counterparts. The findings have important implications for the mental health disadvantages experienced by TGD people currently in prison.

Keywords: mental health, transgender, incarceration, treatment, Survey of Prison Inmates

Introduction

More than one million individuals are currently held in state or federal prisons in the United States (Carson, 2021), with millions more formerly imprisoned (Shannon *et al.*, 2017). Although imprisonment rates have steadily declined since 2010 (Carson, 2021), the consequences of the decades-long expansion of the carceral state remain long lasting, particularly for individuals with serious mental illness who are cycled through the ''revolving door'' of the criminal justice system (Fazel, 2018; Wildeman & Wang, 2017). Greater punitiveness in the 1970s paired with the deinstitutionalization of public mental health hospitals without community-based alternatives contributed to an increase in incarceration as a mental health crisis response (Baillargeon *et al.*, 2009; Lamb & Bachrach, 2001). Recent epidemiological studies indicate a higher prevalence of mental health conditions, including major depressive and psychotic disorders, among incarcerated populations (Fazel & Seewald, 2012; Fazel *et al.*, 2016). According to the 2016 Survey of Prison Inmates, 41% of all individuals incarcerated in state and federal prisons had a mental health diagnosis and 13% met the threshold for serious psychological distress during the past 30 days (Maruschak *et al.*, 2021). During incarceration, many receive inadequate mental health treatment (Reingle Gonzalez & Connell, 2014; Wilper *et al.*, 2009) and experience ''pains of imprisonment'' that often worsen mental health (Baćak *et al.*, 2019; Haney, 2017; Schnittker *et al.*, 2012). After incarceration, poor mental health is associated with a higher likelihood of recidivism (Wallace & Wang, 2020), thus completing the system churn.

Despite the growing scholarship on the cycling of people with mental illness through the criminal justice system, to the best of our knowledge, no studies have explicitly examined differences in mental health conditions and clinical contact among incarcerated transgender and gender diverse (TGD) and cisgender individuals in a nationally representative sample. This lack of comparison within incarcerated populations presents a notable

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gap in the literature, especially given the well-documented mental health disparities among TGD people in the general population. TGD individuals experience poorer mental health and have disproportionately high rates of substance use, suicide ideation, and suicide (Cicero *et al.*, 2020; Grant *et al.*, 2010; Rimes *et al.*, 2019). In one recent study, for example, 27% of TGD individuals compared to 9% of cisgender individuals reported having been diagnosed with a depression disorder (Crissman *et al.*, 2019). Furthermore, relative to their cisgender counterparts, TGD people experience disproportionate inequalities in health care treatment and access (Giffort & Underman, 2016; Hsieh & Shuster, 2021) and face widespread stigma (Poteat *et al.*, 2013).

The existing research comparing mental health outcomes across incarceration status and across gender identity motivates the current study objective to compare mental health outcomes across gender identity within the incarcerated population.

Incarceration and Mental Health of TGD Individuals

Research exploring incarceration rates of TGD people are rare. However, estimates indicate that TGD individuals are disproportionately incarcerated (Brown & McDuffie, 2009). For instance, in purposive and convenience samples, estimates of incarceration history range from 19% to 65% for transgender women and men (Brennan *et al.*, 2012; Clements-Nolle *et al.*, 2001; Reisner *et al.*, 2014). By comparison, estimates from the National Longitudinal Study of Adolescent to Adult Health indicate approximately 15% of 24- to 34-year-old adults reported prior incarceration (Semenza *et al.*, 2020). Other research indicates that lesbian, gay, or bisexual individuals are also disproportionately incarcerated—at three times the rate of the U.S. adult population (Meyer *et al.*, 2017).

TGD individuals face multiple barriers to care that are exacerbated in the prison setting. Macro-level barriers, such as restrictive and gender normative treatment guidelines (Puckett *et al.*, 2018), are reinforced by the gender-segregated structure of prisons (Sevelius and Jenness, 2017). Despite official policy to provide gender-affirming hormones at the level maintained before incarceration, TGD individuals are at increased risk of having medical treatment withheld (Brown & McDuffie, 2009), in part due to transfers, lack of providers, and lack of prescriptions (Tarzwell, 2006). For instance, in one study, one quarter of transgender women reported being denied hormones or regular medical care during their incarceration (Reisner *et al.*, 2014).

Although more department of corrections policies are incorporating guidelines for transgender care, many lag behind (Routh *et al.*, 2017). In addition, prison systems create enormous pressures to engage in gender work that reaffirms ''an unequal, often violent and always hegemonically male, community'' (Jenness & Fenstermaker, 2014, p. 28).

Provider-level barriers, including a lack of culturally competent training in medical education (Giffort & Underman, 2016) and prejudicial and disrepectful behavior (Morris *et al.*, 2020; Shuster, 2021), are mirrored in prison health care systems (Trimble, 2019). TGD groups often report being met with suspicion because of bias and being treated like specimens (Meyer *et al.*, 2020) and feeling embarrassed and harassed while using mental health services (Dewey, 2015). Inadequate training and lack of preparedness and comfort among therapists have been linked to inequitable outcomes (Dewey, 2015; Poteat *et al.*, 2013). Mistreatment by both correctional staff and health care providers often comes in the form of misgendering and restricting access to gender-specific items and clothing (Brömdal *et al.*, 2019). Because of the disregard for privacy, bodily autonomy, and rights of incarcerated TGD people (Wirtz *et al.*, 2020), a hesitancy to disclose personal information is even more pronounced (Benson, 2013).

TGD individuals also often describe high levels of abuse, harassment, and discrimination, and report extended periods of solitary confinement, whether for punishment or protection (McCauley *et al.*, 2018). TGD people are significantly more likely to report being a victim of assault (Jenness *et al.*, 2007, 2019). According to a 2011–2012 survey of incarcerated individuals, approximately one in three transgender people in state and federal prisons reported being sexually victimized (Beck *et al.*, 2013). The prevalence of victimization for transgender adults was much higher than for cisgender women and men, whether the victimization was by other incarcerated individuals (24% vs. 7% vs. 2%) or staff (17% vs. 2% vs. 2%). In another study, among 748 transgender women with a history of incarceration, nearly half reported being mistreated or victimized by other incarcerated people or correctional staff (Reisner *et al.*, 2014).

Emerging research has identified incarceration as a potential risk factor for poor health among TGD individuals. For instance, in a sample of transgender women, Brennan *et al.* (2012) found an association between a history of incarceration and a syndemic index of four health and psychosocial factors (low self-esteem, polysubstance use, victimization, and intimate partner violence). Other research indicates that long-term, rather than short-term, incarceration is associated with attempted suicide by transgender individuals in states providing low levels of gender-affirming medical services (Drakeford, 2018). These health and suicide disparities among transgender women are exacerbated by mistreatment and victimization experiences while in jail or prison (Drakeford, 2018; Reisner *et al.*, 2014).

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The disproportionate experiences of TGD people with both the mental health and prison systems indicate a potentially devastating public health challenge. Responding to the recent calls to study incarceration and TGD health (Baćak *et al.*, 2018; Tadros *et al.*, 2020), we assess the mental health burden of incarcerated TGD individuals compared to their cisgender counterparts. We compare these groups to avoid engaging in trans exceptionalism, where trans people are perceived as too different—too ''other''—to be compared to cisgender individuals (Shuster, 2021). Trans exceptionalism unintentionally renders TGD individuals invisible in most study designs and analyses, while limiting a full appreciation of how TGD identification is an overlooked but vital component to understanding mental health inequities among incarcerated populations.

Method

Sample and Procedures

We use data from the 2016 Survey of Prison Inmates (SPI). The Bureau of Justice Statistics conducted the SPI to provide nationally representative data on individuals held in state and federally owned and operated prisons. The survey used a stratified two-stage sample design. In the first stage, facilities were selected based on their region, security level, and incarcerated population (both sex and size). In the second stage, incarcerated individuals were randomly selected for participation. To ensure there were enough people incarcerated in federal prisons for nondrug offenses, individuals in federal prison were oversampled and only a subsample of those incarcerated for drug offenses were interviewed.

Measures

We provide a descriptive profile of mental health conditions and clinical contact by using a variety of indicators of mental health symptoms, diagnoses, treatment, and correlates. Frequency of recent mental health symptoms and prevalence of recent mental health conditions were measured using the Kessler 6 (K6) nonspecific psychological distress scale (Kessler *et al.*, 2002, 2011; Maruschak *et al.*, 2021). For symptoms, individuals were asked how often during the past 30 days they felt (a) nervous, (b) hopeless, (c) restless or fidgety, (d) so depressed that nothing could cheer them up, (e) everything was an effort, and (f) worthless (response options: 0 ''none of the time'' to 4 ''all of the time''). Then, using a summary score of these six mental health symptoms, mental health conditions were identified; a score of 8 to 12 was classified as *mild-moderate* psychological distress and a score of 13 or more was classified as *serious* psychological distress (Dhingra *et al.*, 2011; Wang *et al.*, 2007).

Lifetime measures of mental health clinical contact included diagnoses, medication, and hospitalization. *Diagnosis* refers to whether respondents reported ever being told by a mental health professional that they had a mental health condition. We also examine prevalence of diagnoses for specific disorders, including *major depressive, bipolar, schizophrenia, post-traumatic stress, anxiety, personality,* and *other* disorders. Respondents also reported whether they ever received *medication* or were *hospitalized* for a mental health condition.

Prison clinical contact, *since admission* and *current,* included two indicators: prescription *medication* and *counseling* or therapy from a trained professional. For both measures, we also estimate the prevalence among individuals who reported ever being diagnosed by a professional as having a mental health condition.

Respondents were asked how they describe themselves: (a) male, (b) female, (c) transgender, or (d) do not identify as male, female, or transgender. Due to small sample sizes, we combine the latter two groups to create the classification of TGD individuals. Of the 24,690 respondents, 54 (0.2%) were identified as TGD. A limitation of this item, similar to other surveys, is that the language conflates sex categories (female, male) with gender categories (cisgender or transgender women and men, nonbinary, etc.; see Westbrook & Saperstein, 2015). To align with contemporary understandings of sex and gender as distinct categories, here forward we use cisgender women and cisgender men instead of female and male.

To provide additional detail about the similarities and differences between incarcerated TGD and cisgender individuals, we also compare sociodemographic, offense, and background characteristics. We include measures of *age group* (under 25, 25–34, 35–44, 45 and over), *race and ethnicity* (non-Hispanic White, non-Hispanic Black, Hispanic, other), *number of previous arrests* (count, truncated at five), *previous incarceration* (yes, no), *current offense type* (violent, property, drug, public order), and the number of *writeups in past year* during incarceration (count, truncated at five). Given that substance use disorders are common comorbidities with mental health disorders (NIDA, 2020), we include indicators of *alcohol abuse* (the number of drinking-related problems in the year before admission) and *substance abuse* (the number of drug-related problems in the year before admission). Prior research also indicates that economic and housing insecurity are social determinants of mental health (Alegría *et al.*, 2018). We therefore include measures of *public assistance* before age 18 years (yes, no) and lifetime *homelessness* (yes, no).

Analytical Strategy

We used Stata 14 to analyze bivariate relationships between gender identity and self-reported mental health conditions and clinical contact. We first estimated percentages and means (with confidence intervals [CI])

across gender identity. Both the unweighted and weighted numbers of individuals in each variable category are available upon request. Then, to assess whether differences across gender identity were statistically significant, we used a series of regression models—logistic regression for dichotomous outcomes (e.g., major depressive diagnosis), multinomial logistic for categorical outcomes (e.g., current offense type), and ordinary least square for continuous items (e.g., frequency of feeling nervous).

In each model, we treat gender identity as a series of dummy variables with TGD individuals as the reference category. Our strategy allows us to compare TGD individuals to both cisgender men and cisgender women in the same model. If a comparison is statistically significant at $p < .05$, we denote it in the table with an asterisk. To account for nonresponse and survey design, we applied survey weights provided by the Bureau of Justice Statistics using the *svy* and *subpop* commands. We found similar patterns when we conducted the analyses without survey weights.

Results

Sociodemographic, offense, and background characteristics are displayed in Table 1. Results generally show that gender differences in the age and race and ethnicity of incarcerated individuals were not statistically significant. The results also suggest that TGD individuals have similar offense histories as their cisgender counterparts. For instance, approximately 39.1% of TGD individuals were previously incarcerated (95% CI 23.5–57.3), compared to 47.5% of cisgender men (95% CI 46.0–49.0) and 32.3% of cisgender women (95% CI 30.3–34.3). Furthermore, there were no statistically significant differences in writeups in the past year, alcohol or substance abuse before admission, or being on public assistance before age 18 years. TGD individuals (32.3%; 95% CI 17.9–51.0) were more likely than cisgender men (12.9%; 95% CI 12.1–13.8) to report ever being homeless, which is consistent with past research indicating a high prevalence of homelessness among transgender people, especially among those incarcerated (Sexton *et al.*, 2010).

Differences in mental health conditions and clinical contact across incarcerated TGD and cisgender individuals are presented in Table 2. Results show that TGD individuals have disproportionate mental health symptoms and conditions in the past 30 days when compared to cisgender men and women. For instance, incarcerated

Table 1. Descriptive Characteristics of Transgender and Gender Diverse and Cisgender Incarcerated Individuals (Weighted)

	Percentage or mean and (95% confidence intervals)					
Variables	*TGD*		*Cisgender men*		*Cisgender women*	
Age group						
24 and under[a]	8.8%	(2.9–23.5)	9.7%	(8.6–11.0)	8.4%	(7.3–9.6)
25–34	39.7%	(23.6–58.4)	31.3%	(29.9–32.7)	36.2%	(34.5–38.0)
35–44	29.9%	(17.5–46.3)	27.2%	(26.4–28.0)	29.0%	(27.7–30.4)
45 and over	21.6%	(11.2–37.4)	31.8%	(30.1–33.7)	26.4%	(24.5–28.4)
Race and ethnicity						
Non-Hispanic White[a]	19.4%	(9.2–36.4)	29.4%	(27.6–31.3)	46.4%	(42.9–50.0)
Non-Hispanic Black	20.9%	(9.4–40.2)	34.6%	(32.4–37.0)	19.3%	(16.8–22.1)
Hispanic	33.3%	(19.8–50.3)	23.1%	(21.3–24.9)	18.2%*	(15.4–21.4)
Other	26.4%	(14.6–42.9)	12.9%*	(12.1–13.8)	16.1%*	(14.3–18.0)
No. of arrests	4.68	(3.43–5.93)	4.78	(4.64–4.91)	4.03	(3.87–4.19)
Previous incarceration	39.1%	(23.5–57.3)	47.5%	(46.0–49.0)	32.3%	(30.3–34.3)
Current offense type						
Property[a]	12.8%	(4.9–29.3)	13.6%	(12.7–14.6)	25.1%	(22.3–28.1)
Violent	63.7%	(45.7–78.6)	52.1%	(49.3–54.8)	34.2%*	(29.0–39.7)
Drug	13.1%	(5.2–29.4)	18.3%	(16.8–19.8)	28.0%	(25.1–31.2)
Public order	10.4%	(3.5–27.1)	16.0%	(14.9–17.2)	12.7%	(11.5–14.1)
Writeups in past year	0.78	(0.64–0.92)	0.77	(0.75–0.78)	0.85	(0.83–0.88)
Alcohol abuse	0.10	(0.03–0.17)	0.12	(0.11–0.12)	0.12	(0.11–0.13)
Substance abuse	0.19	(0.05–0.32)	0.15	(0.14–0.16)	0.28	(0.25–0.30)
Child public assistance	46.0%	(29.8–63.1)	41.6%	(40.2–43.0)	42.7%	(40.6–44.8)
Homeless	32.2%	(17.9–51.0)	12.9%*	(12.1–13.8)	19.8%	(17.9–21.9)

The sample was weighted using the survey weights provided by the designers of the surveys. Asterisks indicate statistically significant differences from TGD individuals. The unweighted sample includes 54 TGD individuals, 18,402 cisgender men, and 6,234 cisgender women.

[a]Reference category for significance tests.

*$p < .05$.

TGD, transgender and gender diverse.

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Table 2. Mental Health Conditions and Clinical Contact Among Transgender and Gender Diverse and Cisgender Incarcerated Individuals (Weighted)

	Percentage or mean and (95% confidence intervals)					
Variables	*TGD*		*Cisgender men*		*Cisgender women*	
K6 mental health symptoms						
Frequency of feeling nervous	2.27	(1.81–2.74)	1.12*	(1.08–1.15)	1.61*	(1.56–1.66)
Frequency of feeling hopeless	1.78	(1.33–2.23)	0.80*	(0.77–0.83)	1.03*	(0.98–1.09)
Frequency of feeling restless	2.14	(1.67–2.62)	1.45*	(1.41–1.48)	1.77	(1.71–1.84)
Frequency of feeling depressed	1.55	(1.05–2.04)	0.77*	(0.74–0.80)	0.92*	(0.86–0.97)
Frequency of everything effortful	2.10	(1.61–2.59)	1.32*	(1.28–1.36)	1.42*	(1.36–1.47)
Frequency of feeling worthless	1.13	(0.67–1.58)	0.54*	(0.51–0.57)	0.71	(0.67–0.76)
K6 psychological distress						
Mild-moderate	40.6%	(25.3–58.0)	19.8%*	(19.1–20.5)	25.7%	(24.3–27.3)
Serious	32.9%	(17.5–48.3)	13.0%*	(12.1–13.8)	18.6%*	(17.1–20.2)
Lifetime clinical contact						
Diagnosis	90.0%	(72.3–96.9)	38.0%*	(36.4–39.6)	67.1%*	(64.3–69.7)
Major depressive	66.0%	(49.0–83.0)	23.4%*	(22.2–24.6)	47.6%*	(45.1–50.2)
Bipolar	77.5%	(63.1–91.9)	19.8%*	(18.7–20.9)	41.7%*	(39.8–43.6)
Schizophrenia	36.3%	(20.3–52.4)	7.8%*	(7.0–8.5)	10.1%*	(9.0–11.2)
Post-traumatic stress	36.6%	(21.2–52.0)	11.6%*	(10.7–12.6)	32.9%	(30.4–35.4)
Anxiety	46.7%	(29.8–63.7)	18.7%*	(17.5–19.8)	45.5%	(43.2–47.9)
Personality	39.6%	(22.2–57.1)	10.0%*	(9.2–10.7)	17.2%*	(15.7–18.7)
Other	12.6%	(−0.6–25.8)	2.0%*	(1.8–2.3)	2.5%*	(2.1–3.0)
Medication	75.6%	(58.2–87.3)	26.6%*	(25.1–28.2)	52.7%*	(49.4–56.0)
Hospitalization	64.2%	(47.4–78.1)	16.1%*	(15.1–17.1)	30.3%*	(28.3–32.3)
Prison clinical contact						
Medication since admission	69.5%	(53.7–85.4)	22.1%*	(20.6–23.7)	46.1%*	(42.3–49.9)
Medication currently	55.8%	(38.8–72.9)	12.3%*	(11.1–13.5)	33.3%*	(30.4–36.2)
Counseling since admission	70.5%	(55.2–85.9)	22.5%*	(21.0–24.0)	41.9%*	(30.4–36.2)
Counseling currently	50.4%	(33.3–67.5)	11.7%*	(10.4–12.9)	28.0%*	(24.8–31.2)
Prison clinical contact if diagnosis						
Medication since admission	74.7%	(58.7–90.8)	50.8%*	(48.4–53.1)	64.7%	(61.1–68.2)
Medication currently	58.6%	(40.1–77.1)	29.8%*	(27.6–31.9)	48.1%	(45.1–51.1)
Counseling since admission	78.9%	(64.4–93.4)	47.8%*	(45.5–50.2)	56.5%*	(52.3–60.6)
Counseling currently	55.2%	(36.5–73.9)	27.6%*	(25.3–30.0)	39.4%	(35.6–43.2)

The sample was weighted using the survey weights provided by the designers of the surveys. Asterisks indicate statistically significant differences from TGD individuals. The unweighted sample includes 54 TGD individuals, 18,402 cisgender men, and 6,234 cisgender women.

*$p < .05$.

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TGD individuals reported higher frequencies of feeling nervous, hopeless, restless, depressed, everything was an effort, and worthless. Incarcerated TGD individuals were more likely to meet the threshold for both mild-moderate (40.6%; 95% CI 25.3–58.0) and serious psychological distress (32.9%; 95% CI 17.5–48.3) than cisgender women (mild-moderate 25.7%; 95% CI 24.3–27.3; serious 18.6%, 95% CI 17.1–20.2) and cisgender men (mild-moderate 19.8%; 95% CI 19.1–20.5; serious 13.0%, 95% CI 12.1–13.8).

When examining lifetime clinical contact, differences appear even greater. Approximately 90% of incarcerated TGD individuals reported ever being diagnosed by a professional for a mental health condition (95% CI 72.3–96.9), compared to 67.1% of cisgender women (95% CI 64.3–69.7) and 38.0% of cisgender men (95% CI 36.4–39.6). When examining separate diagnoses, TGD individuals were more likely to report diagnoses for major depressive disorder, bipolar disorder, schizophrenia, personality, and other disorders. TGD individuals were more likely to report diagnoses for post-traumatic stress and anxiety disorder than cisgender men, but differences from cisgender women were not statistically significant. Although approximately one quarter of cisgender men (26.6%; 95% CI 25.1–28.2) and half of cisgender women (52.7%; 95% CI 49.4–56.0) received medication for a mental health condition, approximately three-quarters of TGD individuals received medication in their lifetime (75.6%; 95% CI 58.2–87.3). Hospitalization for a mental health condition was also more common among TGD individuals (64.2%; 95% CI 47.4–78.1) than their cisgender counterparts (women 30.3%; 95% CI 28.3–32.3; men 16.1%; 95% CI 15.1–17.1).

For prison clinical contact, across all individuals, the prevalence of medication is similar to the prevalence of counseling. Additionally, the prevalence of both medication and counseling since admission is higher than current treatment. TGD individuals were more likely to receive medication and counseling—either since admission or currently—than their cisgender counterparts. To partially account for the possibility that these differences are due to TGD individuals having a disproportionate need for mental health care, we also examine differences in treatment among those ever diagnosed by a professional as having a mental health condition. We find that TGD individuals remain more likely to receive treatment than their cisgender counterparts; however, those differences in treatment shrink.

Discussion

The disproportionate mental health burden of TGD populations combined with their disproportionate carceral contact and experiences in correctional settings indicates a pressing mental health challenge. Prior research on the mental health burden of incarcerated TGD individuals, however, has been largely based on convenience samples or state-level data. Our study adds to this literature by providing an observational assessment of the mental health conditions and clinical contact of TGD individuals compared to their cisgender counterparts using a large, nationally representive sample of the U.S. prison population.

Our results demonstrate that incarcerated TGD individuals have poorer mental health, were more likely to be diagnosed with mental health disorders during their lifetime, and were more likely to receive treatment for mental health conditions. For instance, our analyses suggest that approximately 9 in 10 TGD individuals have ever been diagnosed by a professional for a mental health condition, compared to 7 in 10 cisgender women and 4 in 10 cisgender men. This disproportionate mental health burden mirrors the trends in the general population comparing cisgender and TGD people's mental health; however, the extent of these disparities in prisons is striking. For instance, our data indicate that approximately 66% of incarcerated TGD individuals had a lifetime diagnosis for major depressive disorder, while recent estimates indicate that 27% of TGD people in the general population have a similar diagnosis (Crissman *et al.*, 2019). Research should continue to investigate the mechanisms through which these disparities are exacerbated in prison. There may be an uneven use of the prison system to ''deal'' with TGD individuals (Spade, 2015), especially those previously diagnosed with mental health disorders (Lamb & Bachrach, 2001). On the other hand, the carceral experience may also exacerbate existing mental health conditions, particularly among TGD individuals who are more likely to experience the ''pains of imprisonment.'' As Haney (2017, p. 311) notes, ''…if any of us were challenged to devise an environment that was uniquely *ill suited* to address the needs of psychologically vulnerable persons…we would be hard pressed to come up with anything worse than the modern American prison.''

Our results also suggest that, among those with a lifetime diagnosis, TGD individuals were more likely to receive medication and counseling during incarceration than their cisgender counterparts. Still, more than 4 in 10 TGD individuals with a diagnosis were not currently receiving medication or counseling while in prison. These findings may be particularly concerning when paired with research, indicating that psychological services—when provided—are often ineffective in meeting the needs of TGD individuals (Shuster, 2021).

In addition to the many calls for improved mental health treatment during incarceration (Fazel *et al.*, 2016) and improved services and support after release (Begun *et al.*, 2016; Wallace *et al.*, 2016), we recommend that correctional officials implement treatment and services tailored to the particular needs of TGD individuals given their disproportionate rates of mental health conditions in prison. For instance, therapists trained to work with TGD individuals should be accessible and gender-affirming care should be available, particularly given the research indicating the mental health benefits, such as reduced risk of depression and suicide, of gender-affirming therapy (Padula & Baker, 2017; Turban *et al.*, 2020). Other practical prison-based policy changes should be directed toward raising awareness and implementing competency trainings among prison staff (Van Hout *et al.*, 2020). Brömdal *et al.* (2019) recently offered an extensive list of recommendations for how incarceration settings might uphold the rights and health of transgender individuals.

Our study is limited by the survey item used to capture gender identity in part because it conflates sex and gender. Survey instruments need to be improved to accurately capture these distinct categories (Westbrook & Saperstein, 2015), allowing for more meaningful comparisons across the gender identity of people in prison. Furthermore, as is typical in survey research of TGD experiences (Compton, 2018), the sample of incarcerated TGD people in our study was small ($N = 54$), so the analyses should be interpreted with caution. The small sample also precluded comparisons within TGD individuals or within gender groups (e.g., cisgender women and TGD women). Although our results indicate that TGD identification, in and of itself, is associated with a disproportionate mental health burden, the findings likely concealed important variation across TGD men, TGD

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women, and nonbinary adults (Stanton *et al.*, 2021). Future research should also consider differences between people of color and White incarcerated TGD individuals given the literature documenting notable racial disparities in mental health outcomes among TGD individuals (Kattari *et al.*, 2017).

Conclusion

This study documents the disproportionate mental health burden among incarcerated TGD people. TGD individuals in prison reported poorer mental health outcomes and greater clinical contact than their cisgender counterparts. These data reveal a striking mental health challenge within prisons that policy makers and correctional officials must confront.

Authors' Contributions

E.M.R. conceived of the presented idea. S.M.S. and E.M.R. developed the framing and literature review. A.T.K. accessed the data and performed the analyses. All authors contributed to the interpretation of results and writing of the final article.

Author Disclosure Statement

The authors disclosed no conflicts of interest with respect to the research, authorship, or publication of this article.

Funding Information

The authors received no financial support for the research, authorship, and/or publication of this article.

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